ABSTRACT OF THE DISCLOSURE

In the 1394 communication, communication at a data rate of S100, S200, S400, S800, S1600, S3200 or at a faster speed in the future can be performed. When the 1394 communication is performed with an optical-fiber cable and a UTP cable, it is possible to cope with high-speed communication by arranging bits being not used at a low speed, on a data stream. Transmission of data rates is realized by sending speed-control symbols at a predetermined speed. As for a Tp bias signal, an equivalent object is achieved by sending predetermined control symbols.